

## Claims:

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1. A conjugated poly(1,4-arylene vinylene) compound comprising an arylene unit having adjacent substituents, said substituents being oriented such as to affect the electronic structure of the compound sufficiently to cause a blue-shift in the photoluminescence and/or electroluminescence of the compound.

2. A compound according to claim 1, wherein the substituents are independently selected from:

(i) R-, RO-, RS-, and RR'N-

wherein R and R' are independently: a straight or branched chain alkyl group, alkenyl group, or alkynyl group having 1-10 carbon atoms; an aryl group; or an aromatic or non-aromatic heterocyclic group; and

(ii) a group in which the adjacent substituents together form a cyclic group, the cyclic group containing, in addition to the two carbon atoms of the arylene unit to which it is attached, 1-10 carbon atoms and 0 or 1-6 hetero atoms selected from O, S and N.

3. A compound according to claim 2, wherein the cyclic group contains 2-6 hetero atoms.

4. A compound according to ~~any preceding claim~~ <sup>claim 1</sup>, wherein one or both of the adjacent substituents are independently selected from a branched alkyl group and a branched alkoxy group.

5. A compound according to ~~any preceding claim~~ <sup>claim 1</sup>, wherein each of the carbon atoms at the adjacent substituted positions of the aryl unit is attached to its substituent via a hetero atom, selected from O, S or N.

6. A compound according to ~~any preceding claim~~ <sup>claim 1</sup>, wherein the substituents are solubilising substituents.

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*Claim*  
7. A compound according to ~~any preceding claim~~, wherein one or both of the adjacent substituents are independently selected from butyloxy, ethylhexyloxy and 3',7'-dimethyloctyloxy groups.

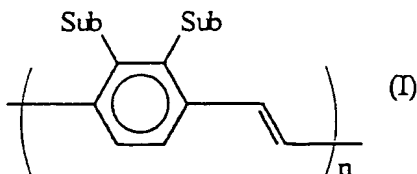
*Claim 1*  
8. A compound according to ~~any preceding claim~~, wherein the arylene unit is a fluorene unit, a phenyl unit, a thienyl unit, a naphthalene unit, a pyridine unit, a quinoline unit, a quinoxaline unit, or a unit comprising a thienylene and a phenylene.

*Claim*  
9. A compound according to ~~any preceding claim~~, wherein the poly(arylene vinylene) is a copolymer comprising a fluorescent unit carrying a distyryl-2,3-substituted-benzene fragment.

*Claim 1*  
10. A compound according to ~~any preceding claim~~, which is a poly(phenylene vinylene) compound.

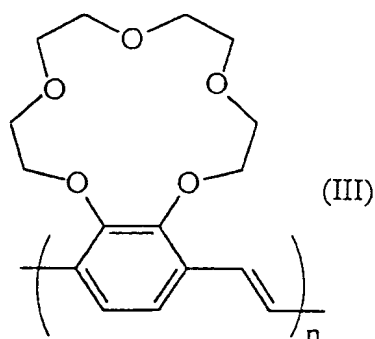
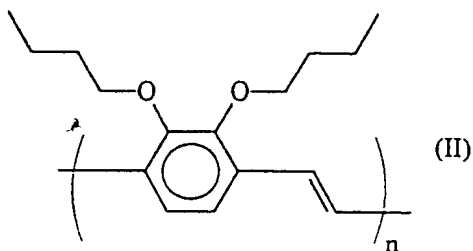
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11. A compound according to ~~claim 10~~, wherein the adjacent substituents are in the 2-position and the 3-position of the phenylene residue.

12. A compound according to claim 11, of formula (I):



*Claim 1*  
wherein Sub is a substituent as defined in ~~any of claims 1-7~~, the vinylene unit may be a trans vinylene unit or a cis vinylene unit, and n is the number of units of the formula in the polymer.

13. A compound according to claim 11, of formula (II) or formula (III):



wherein the vinylene unit may be a trans vinylene unit or a cis vinylene unit, and n is the number of units of the respective formula in the polymer.

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E2 14. A method for the production of a compound as defined in <sup>claim 1</sup> ~~any preceding claim~~, which method comprises polymerising a bis(halomethyl) substituted aryl monomer in the presence of a base to form a poly(arylene vinylene), wherein the aryl monomer has adjacent substituents on the aryl residue.

15. A method according to claim 14, wherein the monomer is a bis(chloromethyl), bis(bromomethyl) or bis(iodomethyl) monomer.

- SUB  
E2 16. A method according to claim 14 ~~or claim 15~~, wherein the base is potassium tertiary butoxide.

17. A component or device comprising a compound as defined in <sup>claim 1</sup> ~~any of claims 1-13~~.

18. A component or device according to claim 17, <sup>Further comprising</sup> ~~which is~~ an electric, electronic, optical or optoelectronic component or device.

19. A component or device according to claim 17, <sup>Further comprising</sup> ~~or claim 18, which is~~ a photoluminescent or electroluminescent component or device.

20. A light emitting diode comprising a component or device as defined in <sup>Claim 17</sup> ~~any of claims 17-19.~~

21. A method for producing a component or device ~~as defined in any of claims 17-20,~~ which method comprises coating a solution of a compound as defined in <sup>Claim 1</sup> ~~any of claims 1-13~~ onto a substrate to form a film.

22. A method according to claim 21, wherein the substrate is ITO.

23. A method according to claim 21 ~~or claim 22,~~ wherein the solution is a chloroform solution.

24. A method according to <sup>Claim 21</sup> ~~any of claims 21-23,~~ wherein the solution is spin-coated onto the substrate.

25. Use of a light emitting diode as defined in claim 20, in an electric, electronic, optical or optoelectronic component or device.

26. Use of a poly(arylene vinylene) compound comprising an arylene unit having adjacent substituents, in an electric, electronic, optical or optoelectronic component or device for producing blue-shifted electroluminescence or photoluminescence in said device.

27. Use according to claim 26, wherein the adjacent substituents are as defined in any of claims 1-7.

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28. Use according to claim 26 or claim 27, wherein the arylene unit is as defined in any of claims 8-13.

29. Use according to any of claims 26-28, wherein the electric, electronic, optical or optoelectronic component or device is a light emitting device, such as a light emitting diode.

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